CALIFORNIA HIGH-SPEED TRAIN

Program Environmental Impact Report/Environmental Impact Statement

Bay Area to Merced

LAND USE AND PLANNING, COMMUNITIES AND NEIGHBORHOODS, PROPERTY and ENVIRONMENTAL JUSTICE TECHNICAL EVALUATION

January 2004

Prepared for:

California High-Speed Rail Authority

U.S. Department of Transportation Federal Railroad Administration





CALIFORNIA HIGH-SPEED TRAIN PROGRAM EIR/EIS

Bay Area to Merced Land Use and Planning, Communities and Neighborhoods, Property, and Environmental Justice Technical Evaluation

Prepared by:

Parsons

January 2004

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ACRONYMS

AUTHORITY CALIFORNIA HIGH-SPEED RAIL

CEQA CALIFORNIA ENVIRONMENTAL QUALITY ACT

COG COUNCIL OF GOVERNMENTS

EIR ENVIRONMENTAL IMPACT REPORT

EIS ENVIRONMENTAL IMPACT STATEMENT

EJ ENVIRONMENTAL JUSTICE

EPA ENVIRONMENTAL PROTECTION AGENCY
FAA FEDERAL AVIATION ADMINISTRATION
FHWA FEDERAL HIGHWAY ADMINISTRATION
FRA FEDERAL RAILROAD ADMINISTRATION
FTA FEDERAL TRANSIT ADMINISTRATION

HST HIGH-SPEED TRAIN

MTA METROPOLITAN TRANSPORTATION AUTHORITY

NEPA NATIONAL ENVIRONMENTAL POLICY ACT

OAK OAKLAND INTERNATIONAL AIRPORT

RTP REGIONAL TRANSPORTATION PLAN

SFO SAN FRANCISCO INTERNATIONAL AIRPORT

SJC SAN JOSE INTERNATIONAL AIRPORT

STIP STATE TRANSPORTATION IMPROVEMENT PROGRAM

UPRR UNION PACIFIC RAILROAD
USACE U.S. CORPS OF ENGINEERS

USFWS U.S. FISH AND WILDLIFE SERVICE

1.0 INTRODUCTION

The California High-Speed Rail Authority (Authority) was created by the Legislature in 1996 to develop a plan for the construction, operation, and financing of a statewide, intercity high speed passenger train system.¹ After completing a number of initial studies over the past six years to assess the feasibility of a high speed train system in California and to evaluate the potential ridership for a variety of alternative corridors and station areas, the Authority recommended the evaluation of a proposed high speed train system as the logical next step in the development of California's transportation infrastructure. The Authority does not have responsibility for other intercity transportation systems or facilities, such as expanded highways, or improvements to airports or passenger rail or transit used for intercity trips.

The Authority adopted a *Final Business Plan* in June 2000, which reviewed the economic feasibility of a 1,127-kilometer-long (700-mile-long) high speed train system. This system would be capable of speeds in excess of 321.8 kilometers per hour (200 miles per hour [mph]) on a dedicated, fully grade-separated track with state-of-the-art safety, signaling, and automated train control systems. The system described would connect and serve the major metropolitan areas of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego. The high-speed train system is projected to carry a minimum of 42 million passengers annually (32 million intercity trips and 10 million commuter trips) by the year 2020.

Following the adoption of the *Business Plan*, the appropriate next step for the Authority to take in the pursuit of a high-speed train system is to satisfy the environmental review process required by federal and state laws which will in turn enable public agencies to select and approve a high-speed rail system, define mitigation strategies, obtain necessary approvals, and obtain financial assistance necessary to implement a high-speed rail system. For example, the Federal Railroad Administration (FRA) may be requested by the Authority to issue a *Rule of Particular Applicability*, which establishes safety standards for the high-speed train system for speeds over 200 mph, and for the potential shared use of rail corridors.

The Authority is both the project sponsor and the lead agency for purposes of the California Environmental Quality Act (CEQA) requirements. The Authority has determined that a Program Environmental Impact Report (EIR) is the appropriate CEQA document for the project at this conceptual stage of planning and decision-making, which would include selecting a preferred corridor and station locations for future right-of-way preservation and identifying potential phasing options. No permits are being sought for this phase of environmental review. Later stages of project development would include project-specific detailed environmental documents to assess the impacts of the alternative alignments and stations in those segments of the system that are ready for implementation.

The decisions of federal agencies, particularly the Federal Railroad Administration (FRA) related to high-speed train systems, would constitute major federal actions regarding environmental review under the National Environmental Policy Act (NEPA). NEPA requires federal agencies to prepare an Environmental Impact Statement (EIS) if the proposed action has the potential to cause significant environmental impacts. The proposed action in California warrants the preparation of a Tier 1 Program-level EIS under NEPA, due to the nature and scope of the comprehensive high-speed train system proposed by the Authority, the need to narrow the range of alternatives, and the need to protect/preserve right-of-way in the future. FRA is the federal lead agency for the preparation of the Program EIS, and the Federal Highway Administration (FHWA), the U.S. Environmental Protection Agency (EPA), the U.S. Corps of Engineers (USACE), the Federal Aviation Administration (FTA) are cooperating federal agencies for the EIS.

¹ Chapter 796 of the Statutes of 1996; SB 1420, Kopp and Costa



A combined Program EIR/EIS is to be prepared under the supervision and direction of the FRA and the Authority in conjunction with the federal cooperating agencies. It is intended that other federal, state, regional, and local agencies will use the Program EIR/EIS in reviewing the proposed program and developing feasible and practicable programmatic mitigation strategies and analysis expectations for the Tier 2 detailed environmental review process which would be expected to follow any approval of a high-speed train system.

The statewide high-speed train system has been divided into five regions for study: Bay Area-Merced, Sacramento-Bakersfield, Bakersfield-Los Angeles, Los Angeles-San Diego via the Inland Empire, and Los Angeles-Orange County-San Diego. This Local Area Growth, Development, Planning, Land Use, Socioeconomics, and Environmental Justice Technical Evaluation for the Bay Area-to-Merced region is one of five such reports being prepared for each of the regions on the topic, and it is one of fifteen technical reports for this region. This report will be summarized in the Program EIR/EIS and it will be part of the administrative record supporting the environmental review of alternatives.

1.1 ALTERNATIVES

1.1.1 No-Project Alternative

The No-Project Alternative serves as the baseline for the comparison of Modal and High-Speed Train alternatives (Figure 1.1-1). The No-Project Alternative represents the state's transportation system (highway, air, and conventional rail) as it existed in 1999-2000 and as it would be after implementation of programs or projects currently programmed for implementation and projects that are expected to be funded by 2020. The No-Project Alternative addresses the geographic area serving the same intercity travel market as the proposed high-speed train (generally from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego). The No-Project Alternative satisfies the statutory requirements under CEQA and NEPA for an alternative that does not include any new action or project beyond what is already committed.

The No-Project Alternative defines the existing and future statewide intercity transportation system based on programmed and funded (already in funded programs/financially constrained plans) improvements to the intercity transportation system through 2020, according to the following sources of information:

- State Transportation Improvement Program (STIP)
- Regional Transportation Plans (RTPs) for all modes of travel
- Airport plans
- Intercity passenger rail plans (California Rail Plan 2001-2010, Amtrak Five- and Twenty-year Plans)

As with all of the alternatives, the No-Project Alternative will be assessed against the purpose and need topics/objectives for congestion, safety, air pollution, reliability, and travel times.

LEGEND INTERCITY RAIL HITT AIRPORTS HIGHWAY MCE > Burbank Not to Scale

Figure 1.1-1
No-Project Alternative - California Transportation System

1.1.2 Modal Alternative

There are currently only three main options for intercity travel between the major urban areas of San Diego, Los Angeles, the Central Valley, San Jose, Oakland/San Francisco, and Sacramento: vehicles on the interstate highway system and state highways, commercial airlines serving airports between San Diego and Sacramento and the Bay Area, and conventional passenger trains (Amtrak) on freight and/or commuter rail tracks. The Modal/System Alternative consists of expansion of highways, airports, and intercity and commuter rail systems serving the markets identified for the High-Speed Train Alternative. (Figures 1.2-2 and 1.2-3) The Modal Alternative uses the same inter-city travel demand (not capacity) assumed under the high-end sensitivity analysis completed for the high-speed train ridership in 2020. This same travel demand is assigned to the highways and airports and passenger rail described under the No-Project Alternative, and the additional improvements or expansion of facilities is assumed to meet the demand, regardless of funding potential and without high-speed train service as part of the system.

1.1.3 High-Speed Train Alternative

The Authority has defined a statewide high-speed train system capable of speeds in excess of 200 miles per hour (mph) (320 kilometers per hour [km/h]) on dedicated, fully grade-separated tracks, with state-of-the-art safety, signaling, and automated train control systems. State of the art high-speed steel-wheel-on-steel-rail technology is being considered for the system that would serve the major metropolitan centers of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego. (Figure 1.2-4)

The High-Speed Train (HST) Alternative includes several corridor and station options. A steel-wheel on steel-rail, electrified train, primarily on exclusive right-of-way with small portions of the route on shared track with other rail is planned. Conventional "non-electric" improvements are also being considered along the existing LOSSAN rail corridor from Los Angeles to San Diego. The train track would be either at-grade, in an open trench or tunnel, or on an elevated guideway, depending on terrain and physical constraints.

For purposes of comparative analysis the HST corridors will be described from station-to-station within each region, except where a by-pass option is considered when the point of departure from the corridor will define the end of the corridor segment. The corridors and design options for HST for this region are shown on plans and profiles drawn on aerial photos in Appendix A.

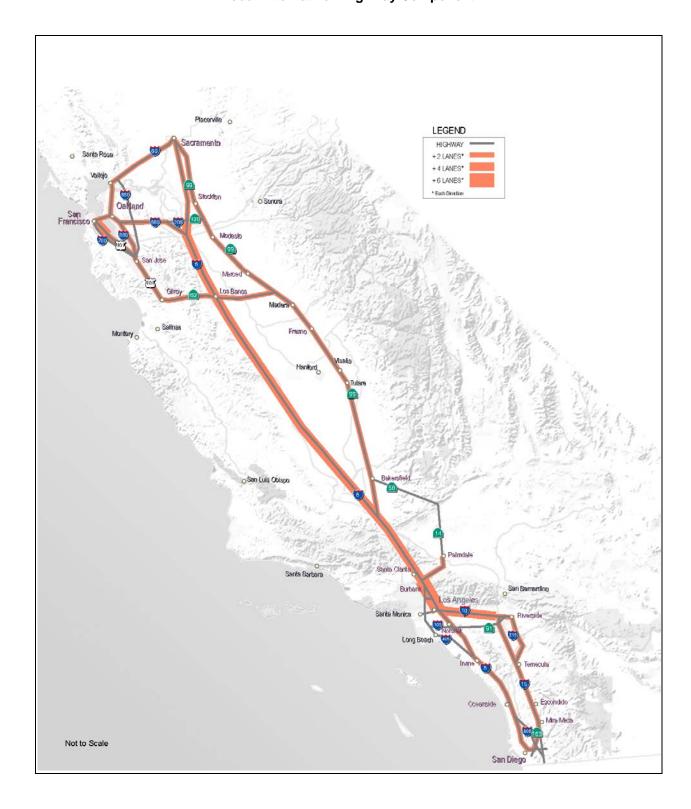


Figure 1.1-2 Modal Alternative - Highway Component

Representative Intercity Demand (Millions) Additional Gates (by Region) Additional Runways (by Region) Regional Airport LEGEND BAY AREA TO MERCED INTERCITY RAIL HHHHH Sacramento AIRPORTS OAKLAND SAN JOSE HIGHWAY 57 3 37.8 SAN FRANSICO SANTAROSA NORTHERN CENTRAL VALLEY SACRAMENTO 12 17 1 MOD STOCKTON SOUTHERN CENTRAL VALLEY BAKERSFIELD VISALIA FRESNO 8.3 16 MERCED Las Banas MODESTO LOS ANGELES BURBANK LOS ANGELES 65 3 41.9 LONG BEACH ORANGE COUNTY ONTARIO SAN DIEGO SAN DIEGO 2 16.4 30 CARLSBAD 185 **TOTALS** 116 10 Not to Scale

Figure 1.1-3
Modal Alternative - Aviation Component

so Robles **Electrified HSR Service** Non-Electric HSR Service Route Options El Centro **University Town Center** San Diego

Figure 1.1-4
High-Speed Alternative - Corridors and Stations for Continued Investigation

2.0 BASELINE/AFFECTED ENVIRONMENT

2.1 STUDY AREA

The study area for land use compatibility, communities and neighborhoods, property, and environmental justice, is 0.25 mi (0.40 km) on either side of the centerline of the rail and highway corridors, and the same distance around stations, airports, and other HST-related facilities. This is the extent of area where either the Modal or HST Alternative might result in a change to land use, the level and patterns of development, and socioeconomic conditions. For the property impacts analysis the study area is narrower, 100 ft (30 m) on either side of the alignment centerlines, to better represent the properties most likely to be impacted by the improvements defined (e.g., highway widenings or new HST lines).

2.2 REGULATORY SETTING

Planning goals and policies for the study area (proposed station areas only) are guided by the *Merced County Year 2000 General Plan, City of Los Banos General Plan, Gilroy General Plan, City of Morgan Hill General Plan, City of Santa Clara General Plan 1990-2005, Palo Alto Comprehensive Plan 1998-2010, Redwood City Strategic General Plan, City of Millbrae General Plan, Millbrae Station Area Specific Plan, San Francisco General Plan, Fremont General Plan, City of Union City 2002 General Plan Policy Document and City of Oakland General Plan, as described below.*

<u>Merced County Year 2000 General Plan</u>. Circulation goals, objectives and policies as stated in the Merced County Year 2000 General Plan include the development of a circulation system which provides for a variety of transportation modes, including rail, for the safe and efficient movement of people and goods throughout the County.

<u>City of Los Banos General Plan (May 1999)</u>. The Circulation and Transportation Element of the General Plan recommends that the City should actively seek to preserve the UPRR corridor for future transportation potential and non-motorized access into the downtown. Goals of the General Plan support the development of inter-city and intra-city transit systems and the provision of a safe, convenient and efficient multi-modal transportation system capable of meeting the needs of the residents of Los Banos within the Urban Development Area and the general public traveling to and through Los Banos.

<u>Gilroy General Plan (June 2002)</u>. The current update of the <u>Gilroy General Plan</u> reflects changes in the local population and economy since the initial adoption of the Plan in 1979; incorporates the most recent projections and assumptions regarding future growth; and responds to the issues, challenges and opportunities created by recent trends and developments. The Transportation and Circulation Element of the <u>Gilroy General Plan</u> promotes the development of local and regional public transit systems that are responsive to the changing needs of Gilroy area residents. Relevant policies and implementing actions as stated in the General Plan are described below:

Policies

- Encourage higher density residential and mixed use developments in close proximity to transit services, especially in the vicinity of the Downtown Caltrain station and multi-modal transit center.
- Support regional transit operations that serve the Gilroy area through coordination of planning efforts and development policies that promote transit use.

Actions

- Use the *Downtown Specific Plan* process to identify sites for potential Transit Oriented Development near the Downtown Caltrain station, and to identify strategies for encouraging such development.
- Work with the County of Santa Clara transit planning effort to plan for new rail and/or other express services to northern Santa Clara County and the rest of the Bay Area.

<u>City of Morgan Hill General Plan (July 2001).</u> The <u>City of Morgan Hill General Plan</u> envisions the City maintaining its small-town character while offering new opportunities for businesses and amenities for residents. The City sets forth the goal to coordinate with local, regional, State and Federal transportation authorities to relieve traffic impacts on city streets by maintaining a long-range coordinated regional transportation system, including the use of expanded highways and commuter rail systems.

Policies stated in the Circulation Element support the expansion of Caltrain commuter service and other alternative transportation systems, as well as the development of a multi-modal transit transfer center.

The City supports the widening of US 101 through Morgan Hill to the extent needed to meet future demand. Action items include the development of techniques to ensure that right-of-way is available to accommodate traffic conditions associated with an eight-lane configuration for US 101 through the City.

<u>City of Santa Clara General Plan 1990–2005</u>. The 1992 Comprehensive Update of the *City of Santa Clara General Plan* serves to guide the City's development and quality of life through the year 2005 and also prepares the City for issues that may arise beyond 2005. The Plan anticipates continued development and redevelopment of underutilized properties.

The Transportation Element focuses on the importance of maintaining and expanding a safe, convenient and cost effective integrated transportation system for the movement of people and goods. Emphasis is placed on alternatives to single occupant vehicle commuter trips such as increased use of carpools, buses and rail. Highway improvements are recommended only when missing links or other major impediments exist in the system.

The Plan identifies rail systems, including intercity rail, as vitally important for the movement of people and goods over long distances. Programs outlined in the Plan support as a long range objective, rail extension between the East Bay and San Jose, Santa Clara and beyond. The Santa Clara/Airport Caltrain station is planned as a multi-modal transfer station that could accommodate passenger service from an intercity rail system. The Plan recognizes the importance of planning for appropriate land use densities to support an inter-regional rail system.

<u>Palo Alto Comprehensive Plan 1998-2010</u>. The <u>Land Use</u> and <u>Transportation Elements</u> of the <u>City of Palo Alto Comprehensive Plan</u> recognize the relationship between transportation and land use and promote land use decisions that encourage walking, bicycling, and public transit use. Programs outlined in the Plan include:

- Encourage infill, redevelopment, and reuse of vacant or underutilized parcels employing minimum density requirements that are appropriate to support transit, bicycling, and walking.
- Promote mixed use development to provide housing and commercial services near employment centers, thereby reducing the necessity of driving.
- Locate higher density development along transit corridors and near multi-modal transit stations.

The Plan also supports a convenient, efficient, public transit system that provides a viable alternative to driving. Relevant policies include:

- Support continued development and improvement of the University Avenue and California Avenue Multi-modal Transit Stations.
- Improve public transit access to regional destinations, including those within Palo Alto.
- Support plans for a quiet, fast rail system that encircles the Bay, and for intra-county and transbay transit systems that link Palo Alto to the rest of Santa Clara County and adjoining counties.

<u>Redwood City Strategic General Plan</u>. The <u>Redwood City Strategic General Plan</u>, adopted January 1990, focuses on the integration of a range of land uses to ensure that Redwood City is a desirable place to live. As stated in the Land Use Element, the primary land use goal recognizes the diversity and complexity of the present urban form of the City but envisions a more integrated relationship between the various land uses, as new construction, and as redevelopment occur in the course of time.

Circulation objectives and policies include the provision of a safe, efficient, and environmentally sensitive transportation system for the movement of people and goods; promotion of fast, safe, comfortable, and convenient transit alternatives to the use of the single-passenger private automobile for daily commuting; and the permanent preservation of the UPRR right-of-way for a fixed rail rapid transit system.

<u>City of Millbrae General Plan 1998 – 2015</u>. The <u>City of Millbrae General Plan</u>, adopted on November 24, 1998, builds upon the City's 1973 General Plan and other established policies related to community preservation, enhancement and development. The General Plan focuses on goals such as the preservation of community character; upgrading older areas; strengthening the City's economic base; use of undeveloped and reusable lands; and providing for the community's housing, social, economic development and safety needs. The General Plan supports the provision of public transit services and alternative programs to provide a viable alternative to single occupant automobile travel. In addition, the City has developed the <u>Millbrae Station Area Specific Plan</u> to provide detailed planning and design direction for projects in the planned Millbrae BART/Caltrain Station area, as described below.

<u>Millbrae Station Area Specific Plan</u>. The Millbrae BART/Caltrain Station area encompasses approximately 116 acres, of which about 50 acres of vacant or underused land are proposed to be developed into office, hotel, residential, retail/restaurant, and parking uses. The <u>Millbrae Station Area Specific Plan</u> establishes policies that guide the location, intensity and character of land uses; the circulation pattern and necessary infrastructure improvements to support development; the organization and design of the area; and the implementing actions required to realize the Plan's recommendations. The Specific Plan demonstrates the City's commitment to the creation of a transit-oriented district that builds on the unique quality of life enjoyed by Millbrae residents and reinforces the public investment being made in transit. Some of the key policies of the <u>Millbrae Station Area Specific Plan</u> are:

- Intensity development in the area surrounding the new intermodal station with a mix of office, hotel, retail and residential uses.
- Enhance the station area through the creation of a "Station Square" and a westside station entry.
- Improve the El Camino Real corridor as a landscaped urban boulevard.
- Enhance Millbrae Avenue as the principal gateway to the community.
- Improve area roadways to provide proper capacity for station area automobile traffic.
- Improve the City's utilities and infrastructure to support new development, including the City's wastewater treatment facility.
- Provide financing mechanisms to facilitate the phased implementation of capital improvements.

<u>San Francisco General Plan</u>. Existing plans and policies within the *San Francisco General Plan* and its elements, as well as other plans contained within the General Plan would be applicable to the proposed Transbay Terminal and Fourth and King station areas. The pertinent area plans include the Downtown Plan, the South of Market Plan, and the Rincon Hill Plan. Other area plans, such as the Northeastern Waterfront Plan, and San Francisco Redevelopment Plans (including the Rincon Point-South Beach Redevelopment Plan, Yerba Buena Center Redevelopment Plan, and Mission Bay North Plan), guide land use in areas contained within the study area.

<u>Fremont General Plan.</u> Adopted in May 1991, the *Fremont General Plan* establishes a vision for the community and addresses challenges facing the City including the need for a satisfactory transportation system, affordable housing, a clean environment, and access to open space and recreation. One of the City's fundamental goals, as stated in the Transportation Element of the General Plan is "increased transportation alternatives and reduced dependency on the automobile." Objectives supporting this goal include the development of rail systems serving Fremont residents, workers and businesses.

<u>City of Union City 2002 General Plan Policy Document (February 2002).</u> The <u>Union City 2002 General Plan</u> formalizes a long-term vision for the physical, economic and social evolution of the City and outlines policies, standards, and programs to guide decisions concerning the City's development. The General Plan provides for the improvement of the roadway system, however, the overall goals of the Transportation Element are to enhance the regional accessibility of Union City though major transit improvements. A primary transportation goal is to promote Union City as a major transit hub through implementation of policies to develop a regional intermodal facility.

<u>Envision Oakland - City of Oakland General Plan (March 1998)</u>. The City of Oakland General Plan is the City's strategy to improve the quality of its human, natural and economic resources, to reinforce the City's distinctive neighborhoods, and to invest in transportation together with commerce and industry. The Land Use and Transportation Element presents a guide for the development of the City that facilitates social, economic and environmental sustainability.

Policy framework for transportation and transit-oriented development reflects the many roles the transportation system has in contributing to the City's economy, its form, and the mobility of its residents and workers. Policy goals include:

- Take full advantage of Oakland's position as a major West Coast transportation hub.
- Integrate land use and transportation planning by developing transit oriented development, where appropriate, at transit and commercial hubs.
- Reduce dependency on the automobile by providing facilities that support use of transportation modes.
- Program and provide adequate funding for needed transportation facilities and services, and related investments.

2.3 LAND USE

The following section describes existing land use within a quarter-mile buffer of the rail and highway corridors, rail stations and airport facilities.

2.3.1 Modal Alternative

2.3.1.1 Existing Land Use Along the Highway Improvement Options

U.S. 101 Corridor

The U.S. 101 corridor begins in San Francisco's Bayview District at the I-280/I-80 interchange and continues south along U.S. 101 to the SR-152 interchange in Gilroy. Existing land uses along each of the six U.S. 101 corridor segments are described below.

San Francisco to San Francisco International Airport (SFO). Between San Francisco and the San Francisco International Airport (SFO), land use along the 101 corridor is varied including residential, industrial, barren land, rangeland, commercial and other urban oriented uses. The San Francisco Bay is located east of the alignment between Beatty Avenue and Sierra Point Parkway. Industrial land is concentrated north of SFO along both sides of U.S. 101. West of the alignment, residential properties are prominent, with some barren land and rangeland between Beatty Avenue and Oyster Point Boulevard.

<u>San Francisco International Airport (SFO) to Redwood City.</u> The corridor continues southeast from SFO to SR-92 in Foster City, generally following the shoreline of the San Francisco Bay. Land uses along both sides of this segment are mostly residential, with industrial and commercial uses interspersed throughout. Industrial uses are concentrated just south of SFO between Millbrae Avenue and Broadway in Burlingame. Commercial properties are primarily situated northwest of the SR-92 interchange.

Continuing southeast from SR-92 to Whipple Avenue in Redwood City, land uses include residential, commercial, industrial, and other urban oriented uses. Residential use is predominant along both sides of the corridor in this segment. Between Rolston Avenue and Holly Street, land use to the east is mostly commercial with industrial use located south of the alignment. Wetlands are situated east of the corridor near Whipple Avenue. The San Mateo County Fairgrounds and Bay Meadows Race Track are located west of the alignment just south of SR-92. East of U.S. 101, are the Belmont Sports Complex at Marine Parkway and San Carlos Airport at Holly Street.

Redwood City to I-880. Land use from Whipple Avenue in Redwood City to Stevens Creek Freeway (SR-85) includes residential, industrial, commercial, rangeland and wetland uses. Residential land use is prevalent along this segment of U.S. 101. Industrial uses are primarily concentrated between San Antonio and Rengstorff avenues, while commercial properties are mostly situated at Willow Road. The Baylands Nature Preserve is located east of the alignment between Embarcadero Road and San Antonio Avenue. Stanford University is situated south of the corridor.

At SR-85, the corridor turns east towards the I-880 interchange in San Jose and includes industrial, commercial and residential uses. North of the alignment, from SR-85 to Mathilda Avenue, land use is primarily commercial with residential use south of the alignment between Fair Oaks Avenue and Lawrence Expressway. Industrial uses are interspersed throughout the alignment and are most concentrated between Lawrence Expressway and San Jose International Airport. Industrial and commercial complexes are located at the I-880 interchange. Mission College and Great America Theme Park are north of the alignment in Santa Clara at Great America Parkway. South of the alignment at SR-237 is Sunnyvale Municipal Golf Course and Norman Y Mineta San Jose International Airport near I-880.

<u>I-880 to San Jose.</u> At I-880, the alignment continues southeast to Yerba Buena Road. Land use in this area is mostly residential. Industrial use is located along both sides of the alignment at I-880 and north of McKee Road. Commercial uses are primarily concentrated at I-280 and at most interchanges along U.S. 101.

<u>San Jose to Gilroy.</u> Continuing southeast from Yerba Buena Road to Cochrane Road in Morgan Hill, land use includes residential, industrial, agricultural, rangeland and other urban uses. Between Yerba Buena Road and Hellyer Avenue, land use is primarily other urban to the west and rangeland to the east. Beyond Hellyer Avenue to Cochrane Road, land use becomes mostly residential. East of the corridor after Silver Creek Valley Road land use is industrial and other urban oriented land use. The Coyote Creek Park runs parallel to U.S. 101 and crosses the alignment at Hellyer Avenue.

The corridor continues southeast from Cochrane Road towards San Martin Avenue. Land use in this area is rangeland to the north and mostly other urban oriented uses to the south. Agricultural uses predominate between Tennant and San Martin avenues. Just north of San Martin Avenue, land use becomes mostly residential along both sides of the alignment.

<u>Gilroy to SR-152</u>. Land use from Gilroy to SR-152 is predominantly agricultural with some residential, commercial and mixed urban oriented uses. Mixed urban land use is just south of San Martin Avenue and residential use is sparse throughout the segment. Commercial land use is concentrated east of the alignment, at the SR-152 interchange. South County Airport and San Ysidro Park are located west of U.S. 101 near San Martin Avenue and SR-152, respectively.

SR-152 Corridor

The SR-152 corridor begins at the U.S. 101 interchange in the City of Gilroy and ends at SR-99 in Merced County. Existing land uses along the SR-152 corridor are described below.

U.S. 101 to I-5. Traveling east from the U.S. 101 interchange in Gilroy, existing land uses along the SR-152 corridor are primarily industrial and commercial complexes, other commercial and transportation oriented uses. Through the Diablo Mountain Range, the alignment passes through range and forest lands. Residential, agricultural and other urban land uses are adjacent to the corridor through the town of San Felipe. Upon leaving the mountain range, the alignment continues through Pacheco State Park and Cottonwood Creek Wildlife Area, and then passes north of the San Luis Reservoir and through the O'Neill Forebay Wildlife Area and San Luis Reservoir State Recreation Area. East of these recreational facilities to the I-5 interchange south of Santa Nella, land use along the corridor is predominately agricultural and transportation oriented.

<u>I-5 to SR-99.</u> Continuing east along SR-152, between I-5 and western Los Banos, land uses are primarily transportation related near the I-5 interchange and then agricultural. Through the City of Los Banos, land uses to the south of the alignment include residential, mixed urban, industrial and commercial properties. To the north, land uses include commercial, residential and industrial uses. After leaving Los Banos, agricultural use is predominant on both sides of the alignment until it reaches SR-33 in the town of Dos Palos. Through Dos Palos, transportation use is located north of the alignment and commercial and residential uses are to the south. Agricultural use is located on both sides of the corridor, between Dos Palos and SR-99.

I-80 Corridor

Existing land uses along the I-80 Corridor are described below. The I-80 corridor begins at the U.S 101 and I-280 interchange in the Bayview District of San Francisco and continues to the I-5 intersection in Sacramento.

San Francisco to I-880. Traveling north on I-80 from the I-280/U.S. 101 interchange, land uses west of the alignment are mostly residential with some commercial, industrial and other urban uses. To the east, land use is dominated by industrial uses with commercial and residential interspersed. Upon approaching downtown San Francisco, the alignment turns east towards Oakland where land uses are mostly industrial to the south and commercial to the north. Land use on both sides of this segment of the alignment include industrial, commercial, residential and mixed urban oriented uses. From downtown, the alignment continues over the San Francisco Bay Bridge and past commercial land use on Treasure Island. The U.S Coast Guard operates from the southern portion of Treasure Island. Between the Bay Bridge and the I-880 interchange in the City of Oakland, the predominate land use is industrial.

<u>I-880 to I-5 (Sacramento)</u>. At the I-880 interchange in West Oakland, the corridor turns north along the eastern shores of the San Francisco Bay. To the west of the alignment, between the I-880 and the I-580 interchanges, there are transportation, other urban, agriculture and some commercial land uses. The Golden Gate Fields horse racing track, San Francisco Bay and Eastshore State Park are also located to the west of the corridor. Land uses on the east include commercial and other urban uses. Residential property is located to the north. The Aquatic Dreamland (Berkeley Aquatic Park) is located to the east of the corridor, just north of Ashby Avenue.

The alignment continues north beyond I-580 before turning east after Richmond Parkway. Land use in this segment of the I-80 corridor is mostly residential with scattered commercial, transportation, industrial and other urban land uses. Commercial and industrial uses are located to the northwest and southwest, respectively. The Hilltop Regional Center and Saint Joseph Cemetery are located to the west. Several parks are located east of the alignment including Alvarado, Albany Hill and Rolling Hills Memorial.

Continuing to the northeast between Richmond Parkway and the Carquinez Bridge, land uses are mostly residential on both sides of the corridor. Industrial, transportation, commercial and other urban oriented land uses are also interspersed along the alignment. The Union Oil Company oil fields are located on the west, just north of Willow Avenue. South of Crockett, the alignment passes by open space and the Sarah Drive and Ohlone parks to the east.

The corridor continues north beyond the Carquinez Bridge towards SR-37 in Vallejo. Land use in this segment of the corridor is predominately residential interspersed with commercial and other urban uses. Rangeland use is located east of the alignment just south of Columbus Parkway and agriculture land is located just south of Redwood Parkway. The highest concentration of commercial land use is located west of the alignment and south of SR-37. The Solano County Fairgrounds, the Joe Mortara Vallejo Golf Course and the Six Flags Marine World amusement park are also located to the west at this location.

From SR-37, the alignment turns northwest towards Fairfield and I-680. Land use along this segment is mostly rangeland. Other land uses in this segment include residential, transportation, forestland, and industrial uses. Residential properties are primarily located northwest of the corridor at SR-37 and south of the I-680 interchange in Fairfield.

Continuing northeast from I-680, through Fairfield to North Texas Street, land uses include agriculture, rangeland, residential, industrial and other urban oriented uses. Agricultural lands are predominately located northwest of the corridor between Suisun Valley Road and Oliver Road. Most of the residential properties are situated between Oliver Road and North Texas Street. Solano Community College is located north of the alignment at Suisun Valley Road. Fairfield Linear Park runs along I-80 from Westfield Shoppingtown in Solano to Solano Community College.

Continuing northeast, between North Texas Street and I-505 in Vacaville, land uses include agriculture, residential, forestland, commercial, rangeland, industrial and other urban uses. From North Texas Street to Lagoon Lake, land use is primarily rangeland and agriculture land uses. Beyond Lagoon Lake, other urban land use, rangeland and agriculture use is predominant before reaching Vacaville. Along both

sides of the alignment between the Vacaville border and I-505, land use is primarily residential and commercial with small areas of industrial oriented use. Lagoon Valley Regional Park, Lagoon Lake and Paradise Valley Golf Course are within the corridor at this location. The Nut Tree Airport in Vacaville is located near I-505 interchange.

Existing land use between I-505 to Dixon Avenue is predominantly agriculture. Other uses include commercial, industrial, residential, rangeland and other urban land uses. Commercial and residential uses are concentrated south of the alignment, just beyond I-505. Industrial use is primarily located between Weber Road and Midway Road in unincorporated Solano County. The Vacaville Glider Port is adjacent to the alignment at this location.

From Dixon Avenue, I-80 continues northeast towards SR-113 in Davis. A variety of land use including commercial, residential, industrial, agricultural, and other urban uses are adjacent to the corridor. Between Dixon Avenue and Sievers Road, other urban and commercial uses are locatede on both sides of the alignment. Industrial uses are primarily located between Sievers Road and Sparling Lane. Agricultural land extends beyond the industrial properties to SR-113 in Davis.

At SR-113, the alignment turns east towards West Sacramento. Land use in this segment includes rangeland, commercial, residential and industrial oriented uses. Commercial and residential land uses are predominant through the City of Davis along both sides of the alignment, with industrial uses surrounding Pole Line Road. Rangeland uses are located just beyond Davis to the south. From County Road 105 to West Sacramento, land use on both sides of the alignment is agricultural. The University of California, Davis is located north of the corridor near the western border of the city. Three parks are located near the alignment: Pioneer, Willow Creek and Play Fields parks.

In West Sacramento, the alignment continues to the northeast towards I-5. Adjacent land use is primarily industrial, residential and commercial. Some range and agriculture lands are north of the alignment near the Sacramento River crossing. Industrial uses are predominately located between the West Sacramento border and the Reed Avenue interchange. Residential properties are located around the Sacramento River, northeast of Reed Avenue. Commercial use is interspersed throughout this segment of the corridor and is predominant at the I-5 interchange. The California Highway Patrol Academy is located north of the alignment. Meadowdale Park is located near the I-80/U.S. 50 interchange and Natomas West and Sand Cove parks are located to the south near El Camino Avenue.

I-880 Corridor

The I-880 corridor begins at the I-80 interchange in Oakland, just east of the San Francisco Bay Bridge, and continues along I-880 to the U.S. 101 intersection in San Jose. Existing land uses along the I-880 corridor are described below.

<u>I-80 to I-238.</u> Between I-80 and 66th Avenue, the I-880 alignment travels southeast towards San Jose. The predominant uses are industrial and commercial complexes on both sides of the UPRR tracks. Land use in the vicinity of the 12th Street area is primarily related to the Downtown Civic Center and other commercial and service oriented uses.

From 66th Avenue to the I-238 interchange, land uses on both sides of the alignment are industrial, residential and commercial. Land uses are primarily commercial at the Oakland-Alameda Coliseum Complex and the I-238 interchange. Residential uses are located between Hegenberger Road and Marina Boulevard and industrial and residential uses are located south of Marina Boulevard. Oakland International Airport is located south of I-880 at this location.

<u>I-238 to Fremont/Newark.</u> From I-238 to SR-84 in Fremont, land uses are primarily residential on both sides of the corridor. Industrial uses are predominant to the north of the alignment between Industrial Parkway and Whipple Road in Hayward. Commercial land uses are concentrated near Winton Avenue. The Ardenwood Regional Preserve is located south of the alignment near the SR-84 interchange.

From SR-84 to Mission Boulevard, land uses on both sides of the alignment include commercial, residential and industrial oriented uses. Residential and commercial uses are interspersed throughout the alignment, with most of the residential land located north of Auto Mall Parkway. Commercial land use is primarily located south of the corridor along Mowry Avenue.

Fremont/Newark to U.S. 101. From Mission Boulevard to U.S. 101, the alignment turns south towards San Jose. Adjacent land uses are primarily industrial and commercial complexes with residential uses interspersed throughout. Industrial and commercial complexes and commercial/service oriented uses are predominant to the west between the SR-237 and Montague Expressway in the City of Milpitas. Between the Alameda County Line and SR-237, residential and industrial uses are located to the east and the McCarthy Ranch Market Place is located to the west. Residential areas are located in the northeast and southeast quadrants of the I-880/Montague Expressway intersection. The Elmwood Rehabilitation Center and County Jail Farm are located to the east.

I-580 Corridor

The I-580 corridor begins at the I-238/I-880 intersection in San Leandro. Heading east via I-238, the alignment merges with I-580 in Castro Valley and continues to I-5 in San Joaquin County. Existing land uses along the corridor are described below.

<u>I-880 to I-5 (via I-238).</u> Land uses along I-238 include commercial, residential and industrial oriented uses. Most of the commercial and residential uses are concentrated near the I-880 and I-580 interchanges, respectively. Industrial land uses are located to the north, just west of 14th Street (SR-185). San Lorenzo Cemetery, Meek Park and San Lorenzo High School are located south of the alignment.

The corridor continues east from the I-238/I-580 interchange to Crow Canyon Road. Earl Warren Park is located to the north and the Don Castro Regional Recreation Area is to the south. Residential uses are predominant along both sides of the alignment with some commercial land use at Castro Valley Boulevard and Redwood Road. Other urban land use is located on both sides of the corridor at Crow Canyon Road.

Continuing east to I-680 through the Diablo Range, existing land use is mostly forest and range lands. Residential properties are located primarily at Crow Canyon Road and west of San Ramon Road. Some industrial businesses are located north of the alignment near San Ramon Road. In between San Ramon Road and I-680, existing land use is mostly commercial with some other urban uses interspersed throughout. The Dublin Cemetery is north of the alignment west of San Ramon Road.

At the I-680 interchange in Dublin, the alignment continues east to Tassajara Road. Other urban land use and industrial and commercial complexes predominate on both sides of the corridor. Residential uses are located mostly to the south of the alignment between I-680 and Dougherty Road, while commercial uses are concentrated near the freeway intersections.

Between Tassajara Road and North Livermore Avenue, land use north of the alignment is mostly agricultural and range lands, with forest lands located near Tassajara Road. Small areas of commercial and industrial uses are located near Airway Boulevard. Land uses south of the I-580 corridor include residential, agricultural, other urban and industrial oriented uses. Residential land uses are located

predominantly near Tassajara Road and Portola Avenue. Other urban land uses, including Las Positas Golf Course, and industrial uses are situated between the alignment and Livermore Municipal Airport.

Continuing east through Livermore to Altamont Pass Road, land use includes agricultural, industrial, commercial and residential. After North Livermore Avenue, land use is primarily agricultural. At First Street (SR-84), land use to the north of the alignment is residential and then becomes agricultural again at Vasco Road. South of SR-84, land use is primarily commercial. Industrial land uses are located south of the alignment beyond SR-84, with most concentrated between Vasco Road and Altamont Pass Road.

Range and forest land uses dominate the segment of the I-580 corridor between Altamont Pass Road and I-205 through the Altamont Pass. Other urban land uses are also along both sides of the alignment in this segment.

From I-205, the alignment begins to head southwest towards I-5, south of Tracy. Existing land use includes agricultural, industrial, commercial, residential and other urban oriented uses. Most of the land along this segment is in agricultural use. Industrial land use is located north of the corridor at Patterson Pass Road. Other urban land use is located south of the alignment at Corral Hollow Road. Residential and commercial uses are located south and north of West Vernalis Road, respectively.

2.3.1.2 Existing Land Use in the Vicinity of the Aviation Improvement Options

Norman Y Mineta San Jose International Airport (SJC)

Land use in the SJC study area is primarily transportation oriented and industrial, as shown in Figure 2.3-1. Other land uses include commercial and residential properties and barren land. Commercial and residential uses are located to the southwest of the airport. Barren land is located to the northeast, with industrial uses beyond. Santa Clara University and Lafayette Park are in the vicinity of the airport to the southwest.

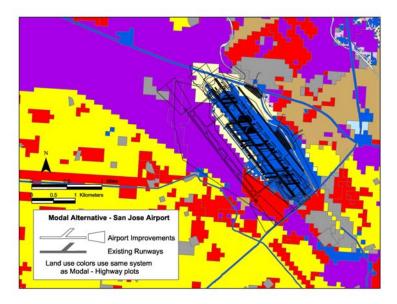


Figure 2.3-1 Existing Land Use in the Vicinity of the Norman Y Mineta San Jose International Airport

Oakland International Airport (OAK)

Land uses in the OAK study area include the San Francisco Bay, commercial, barren land and industrial properties, as shown in Figure 2.3-2. The San Francisco Bay is adjacent to the eastern and southern boundaries of the airport. Commercial land is located to the southeast and industrial use and barren land are situated to the northwest. Shoreline Park and Oyster Bay Regional Shoreline are located north and south of the airport, respectively.

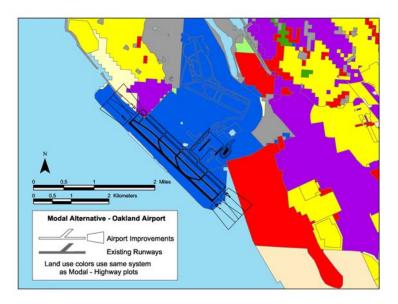
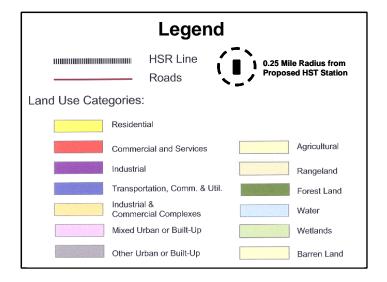


Figure 2.3-2 Existing Land Use in the Vicinity of the Oakland International Airport

2.3.2 Existing Land Use Along the High-Speed Train Corridors and Station Locations

Existing land uses are shown graphically for each of the station option locations. Land uses are indicated using the standard categories as shown below.



2.3.2.1 Merced-to-San Jose

Existing land uses along each of the five Merced-to-San Jose alignment options and respective station locations are described below.

Northern Tunnel Option

The northern tunnel alignment option would begin at either at the BNSF rail corridor or the UPRR corridor near the town of Atwater, north of Merced. The alignment extends west across the San Joaquin Valley through agricultural lands, passing north of the town of Newman. After crossing the California Aqueduct, the tracks would pass through the Diablo Mountain Range in a series of tunnels, passing north of Henry Coe State Park and the Andersen Reservoir. The alignment would then cross over U.S. 101 and SR-85, passing by a single-family residential area and the Monterey Oaks Mobile Home Park. North of SR-85, the alignment would connect with the Caltrain/UPRR rail corridor.

Heading north, between SR-85 and Blossom Hill Road, land uses along the east side of the alignment include Monterey Highway (SR-82), agricultural, residential and commercial/service oriented uses. The Monterey Plaza is located south of Blossom Hill Road and east of SR-82. Land uses on the west side of the tracks are primarily industrial and commercial complexes. Residential uses predominate between Blossom Hill and Capitol Expressway. North of Capitol Expressway, the tracks proceed west to the Guadalupe Freeway past industrial and commercial complexes and the Oak Hill Cemetery. Proceeding north along the Guadalupe Freeway, between Curner Avenue and I-280, adjacent land uses are primarily industrial, commercial and service oriented, with residential uses just south of I-280. As shown in Figure 2.3-3, the alignment continues north from I-280 where it terminates at the San Jose/Diridon Station. Existing land use in proximity to the San Jose/Diridon Station is primarily industrial. Within the City of San Jose, adjacent land uses include industrial/commercial, public park, medium-low density and medium density residential, light industrial, private recreation, agriculture, and campus industrial.

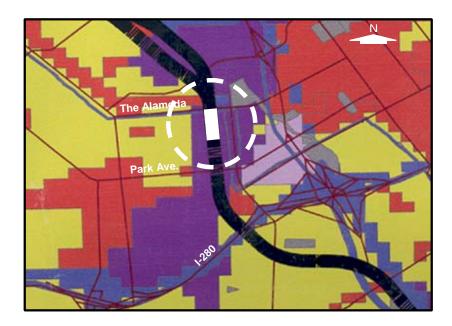


Figure 2.3-3 Existing Land Use in the San Jose/Diridon Station Area

Tunnel Under Park Option

Land use in the vicinity of the Tunnel Under Park alignment option is comparable to the Northern Tunnel Option between its eastern terminus north of Merced and the California Aqueduct. At the Diablo Mountain range, the alignment heads to the southwest crossing primarily in tunnel under the Henry W. Coe State Park. The corridor then crosses over U.S. 101 and SR-85, connects with the Caltrain/UPRR rail corridor north of SR-85 and continues to the San Jose/Diridon Station, as described above.

Minimize Tunnel Option

Land use in the vicinity of the Minimize Tunnel alignment option is similar to the Tunnel Under Park Option except that it would cross at-grade through a portion of the Henry W. Coe State Park. The corridor would cross over U.S. 101 and SR-85, connect with the Caltrain/UPRR rail corridor north of SR-85 and continue to the San Jose/Diridon Station, as described above.

Gilroy Bypass

The Gilroy Bypass alignment option extends west from Merced through the San Joaquin Valley agricultural lands. The corridor would follow along Washington Road and Henry Miller Avenue, passing north of the City of Los Banos to the Los Banos station option located, east of I-5 and north of Henry Miller Avenue. Surrounding land uses at the station site are primarily agricultural, with industrial and commercial complexes and commercial/service oriented uses clustered near I-5, as shown in Figure 2.3-4.

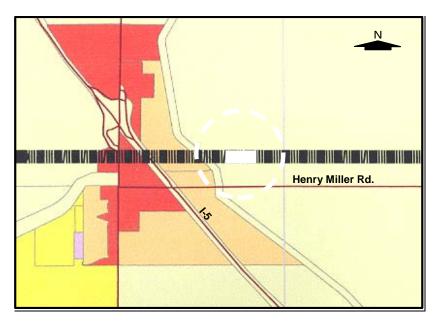


Figure 2.3-4 Existing Land Use in the Los Banos Station Area

Los Banos Station Area to Morgan Hill Station Area. From the Los Banos Station, the alignment would continue west across agricultural land, crossing the Delta Mendota Canal and the California Aqueduct. The corridor would then pass primarily in tunnel through forest land north of the O'Neill Forebay Wildlife Area and San Luis Reservoir, continuing beneath the San Luis National Wildlife Reserve until it aligns with the Pacheco Pass. At the east end of the lower Pacheco Creek Valley, the route would return at-grade, cross over I-152 and continue along the southwest portion of the valley floor. From the Pacheco Creek Valley, the alignment would pass north of the City of Gilroy through Santa Clara Valley

agricultural lands, cross U.S. 101 and connect with the Caltrain/UPRR rail corridor just north of Bloomfield Road.

Between Gilroy and Morgan Hill, agricultural uses are predominant along both sides of the alignment. Residential uses are located along the corridor in the southern portion of the city. Industrial and commercial/service oriented uses increase as the alignment approaches the Morgan Hill station area. Existing land use in the vicinity of the Morgan Hill Station are primarily commercial/service oriented and other urban uses, as shown in Figure 2.3-5.

North of Morgan Hill, land use is primarily agricultural on the west and Coyote Creek Park and other open space areas are located to the east. Residential uses and the Parkway Lakes are adjacent to the alignment as it approaches SR-85. The corridor continues north from SR-85 to the San Jose/Diridon Station area. Land use in this section is described above under the Northern Tunnel Option.

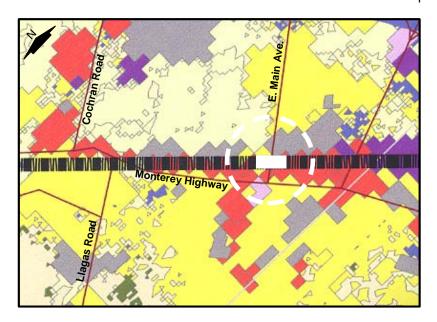


Figure 2.3-5 Existing Land Use in the Morgan Hill Station Area

Gilroy Option

The Gilroy alignment option would be similar to the Gilroy Bypass option except that it would extend further south to a station in the City of Gilroy. From the Pacheco Creek Valley, the corridor would continue south through the Santa Clara agricultural lands and connect with the UPRR alignment south of Gilroy. The corridor would pass through industrial and commercial/service oriented uses as it approaches the Gilroy Station option. As shown in Figure 2.3-6, residential, industrial and commercial/service oriented uses are the primary land uses in the vicinity of the station location. North of Gilroy, the alignment would continue to the Morgan Hill and San Jose/Diridon Station areas. Land use in these respective sections is described above under the Gilroy Bypass and Northern Tunnel options.



Figure 2.3- 6 Existing Land Use in the Gilroy Station Area

San Jose-to-San Francisco

The San Jose-to-San Francisco segment begins at the San Jose/Diridon Station and continues within the existing Caltrain corridor to the Transbay Terminal in San Francisco. The primary land use in the immediate vicinity of the San Jose-to-San Francisco segment is the rail right-of-way, which has existed since the 1860s. Surrounding land uses include commercial, industrial, and residential uses.

San Jose/Diridon Station Area to Santa Clara Station Area. The primary land use in proximity to the San Jose/Diridon Station is industrial. Other nearby land uses within the City of San Jose include combined industrial/commercial, public park, medium-low density medium-density residential, light industrial, private recreation, agriculture, and campus industrial. The San Jose Arena is located adjacent to the Caltrain alignment just north of the San Jose/Diridon Station.

The alignment continues north to the Santa Clara Station area located near Santa Clara University and the San Jose International Airport. Land uses in the station area are primarily industrial on the east, with commercial/service oriented and residential uses on the west, as shown in Figure 2.3-7.

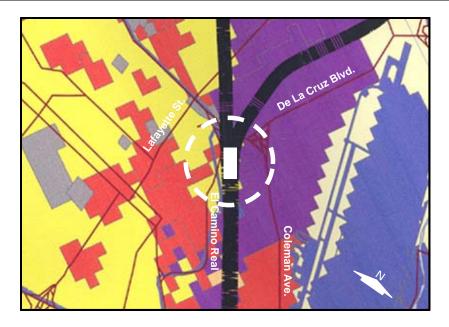


Figure 2.3-7 Existing Land Use in the Santa Clara Station Area

Santa Clara Station Area to Palo Alto Station Area. Through the City of Santa Clara, the adjacent uses consist of mixed use, moderate-density residential, office/research and development, and medium-density residential as defined by the city. The northern section of the corridor within the City of Sunnyvale is primarily industrial, high-density residential, general business, and neighborhood shopping, then industrial with low- to medium-density residential uses interspersed to the north. The City of Mountain View has various land uses adjacent to the corridor including general industrial, residential, public facility, limited industrial and arterial commercial. Rengstorff Park is located adjacent to the railroad right-of-way.

Land uses along the alignment in Palo Alto are primarily single-family residential on the east and commercial/services on the west. Palo Alto High School is adjacent to the railroad corridor just south of the Palo Alto Station, beyond which is Stanford University. Land uses in the immediate vicinity of the station are primarily mixed urban, commercial /services and industrial. The Stanford Shopping Mall and El Camino Park are located adjacent to the railroad corridor to the northwest of the station area, as shown in Figure 2.3-8.

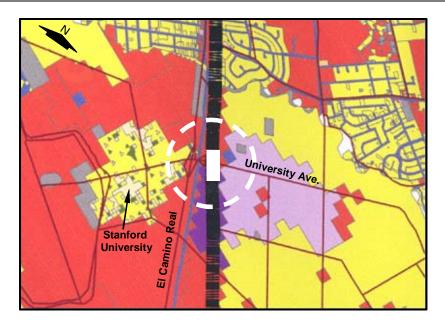


Figure 2.3-8 Existing Land Use in the Palo Alto Station Area

Palo Alto Station Area to Redwood City Station Area. The current land use in Menlo Park is general commercial, and varying types of residential uses from medium density apartment to single-family suburban. The primary use in the Town of Atherton is low-density single-family residential. Redwood City shifts to predominately research and development uses, industrial, and some residential. Land uses in the vicinity of the Redwood City Station, as shown in Figure 2.3-9, are primarily commercial/services oriented uses related to Downtown.

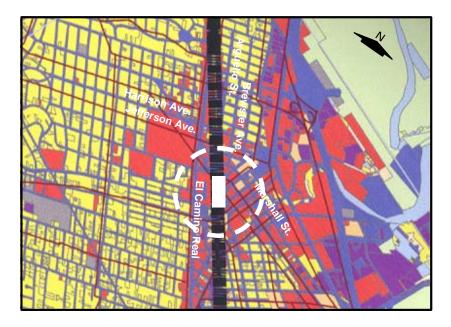


Figure 2.3-9 Existing Land Use in the Redwood City Station Area

Redwood City Station Area to SFO Airport Station Area. The segment within the City of San Carlos includes single-family residential, regional retail, highway, service, and convenience commercial uses. Within the City of Belmont, the primary land uses are highway and service commercial with some high-density residential areas. Located across to the west of Hillsdale Boulevard is the Hillsdale Shopping Mall. The San Mateo County Exposition Building and Bay Meadows Golf Course are located south of Route 92. Land uses adjacent to the Caltrain corridor within the City of San Mateo are commercial, manufacturing, service commercial, office, central business, neighborhood commercial, multi-family residential, and commercial in order from south to north. In the Burlingame segment of the corridor, land uses include commercial, residential, and industrial. The tracks pass directly adjacent to Burlingame High School and Washington Park.

In Millbrae, the area is designated as "unclassified" and contains low-density central business, planned unit development, and industrial uses adjacent to the right-of-way. The San Francisco International Airport is located to the east. The Millbrae Station area is currently characterized by vacant and underutilized parcels. Land uses are primarily low-intensity commercial and service oriented, as shown in Figure 2.3-10.

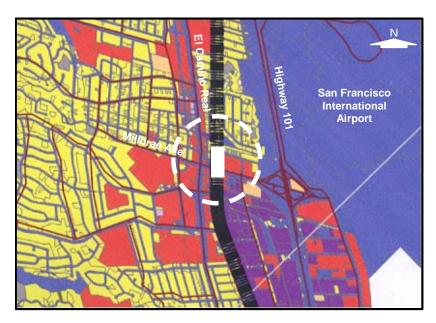


Figure 2.3-10 Existing Land Use in the SFO Airport Station Area

SFO Airport Station Area to Fourth and King Station Area. San Bruno presents a mixture of park/open space and very low-density residential housing with some commercial and light industrial uses. There are primarily light industrial and warehouse uses with some residential and commercial uses through South San Francisco, with mostly open space through the Brisbane lagoon area. From the Bayshore Station to the Paul Avenue Station, the land use shifts from primarily light industrial to a more even distribution of light industrial and residential through Visitacion Valley. Between the Paul Avenue and the 22nd Street Caltrain station areas, land uses are primarily light industrial and warehouse with some residential uses. Land uses in the downtown San Francisco area of the Caltrain corridor are primarily urban and industrial, with some retail, live/work loft, residential, and commercial uses. Existing uses in this segment include the Fourth and King Caltrain Station, as shown in Figure 2.3-11.

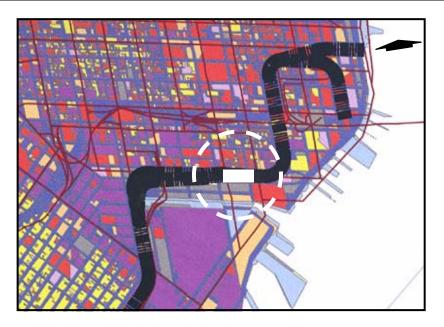


Figure 2.3-11 Existing Land Use in the Fourth and King Station Area

Fourth and King Station Area to Transbay Terminal Station Area. Land use between the Fourth and King Caltrain Station and the Transbay Terminal are a mix of light industrial, warehousing/distribution, commercial office, retail, live-work, and residential uses and surface parking lots. The existing Transbay Terminal is located in the San Francisco Financial District, and is bounded by Mission Street to the north, First Street (and slightly beyond toward Second Street) to the west, Natoma Street to the south, and Fremont Street to the east, with bus ramps that form an elevated loop connecting to the Bay Bridge to the south, as shown in Figure 2.3-12. Industrial and service uses are generally located in the buildings that front the alleys located south of the terminal. Some of these buildings have been converted to office and some to residential uses. Most of the buildings in the Terminal environs are less than six stories, there are several high rise buildings in the area and others have been approved. This area also has a noticeable amount of vacant land. Between Howard and Folsom Streets, there are a number of surface parking lots.



Figure 2.3-12 Existing Land Use in the Transbay Terminal Station Area